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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,978	12/10/2001	Eisaku Katoh	KON-1692	6893

20311 7590 10/27/2003

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EXAMINER

SHEWAREGED, BETELHEM

ART UNIT PAPER NUMBER

1774

DATE MAILED: 10/27/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/015,978

Applicant(s)

KATOH ET AL.

Examiner

Betelhem Shewareged

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2003 and 21 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Applicant's response filed on 05/05/2003, and applicant's submission of Declaration of Mr. Tsubaki filed on 05/21/2003 have been fully considered. All previous rejections have been withdrawn in view of applicant's amendments and comments.
2. Claim 1 is amended, claims 3 and 4 are canceled, claim 10 is added, and thus claims 1-10 are pending.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 5, 6 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakaki et al. (US 6,521,323 B1).

Sakaki discloses an ink jet recoding medium comprising an ink receiving layer formed on a plastic base material, wherein the ink receiving layer comprises component (a), component (b) having a molecular weight of not lower than 2,000, and binder (col. 9, lines 39-50). The base material is equivalent to the claimed non-water absorptive support. Component (a) can be basic polyaluminum chlorides (col. 4, line 47), and is equivalent to the claimed compound of basic aluminum chloride. Component (b) is a

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cationic polymeric substance (col. 5, line 54), and is equivalent to the claimed cationic polymer. The binder is a polyvinyl alcohol (Examples 54, 57, 61 and 62). The weight ratio of component (a) to component (b) is preferably 20:1 to 1:20 (col. 9, line 62), and the total amount of component (a) and component (b) is preferably 0.005-70% by weight (col. 10, line 6), thus the amount of component (a) overlaps with claimed amount.

With respect to claims 6, the ink receiving layer of Sakaki further comprises fillers (col. 10, line 15), wherein the fillers provide a porous structure to the ink receiving layer.

With respect to the pH value it is elementary that the mere recitation of newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art. *In re swinehart et al.*, 169 USPQ 226 at 229. Since the Sakaki reference teaches all of Applicant's claimed compositional and positional limitations, it is inherent that the reference article function in the same manner claimed by Applicant. The burden is upon Applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

### ***Claim Rejections - 35 USC § 103***

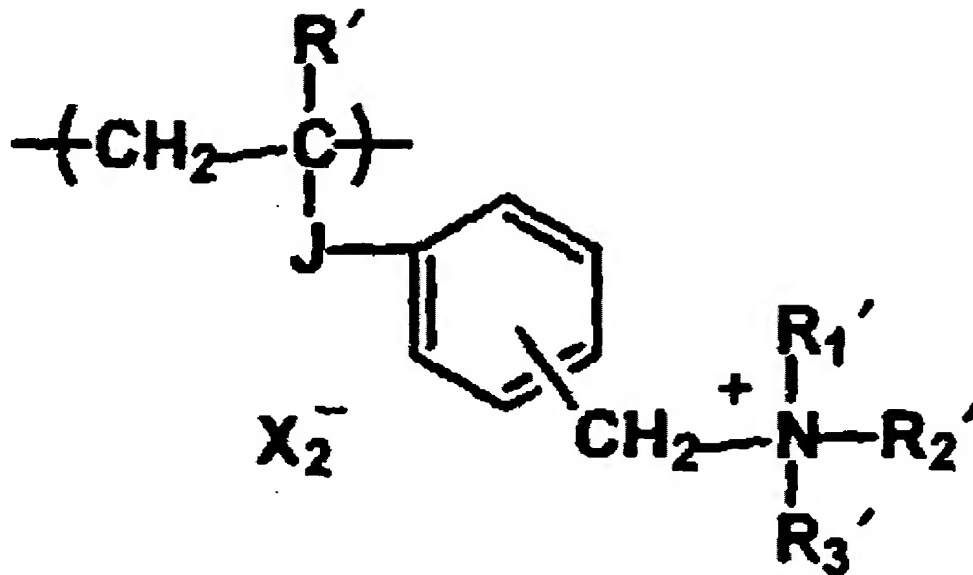
5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaki (US 6,521,323 B1), as applied to claims 1, 2, 5, 6 and 10, above, in further view of Ohbayashi et al. (EP 1 034 940 A1).

Sakaki fails to disclose a cationic polymeric substance as in claims 8 and 9.

Ohbayashi teaches an ink jet recording sheet having a support and a porous ink absorptive layer on the support (abstract). The support may be a water non-absorptive support (paragraph [0027]). The ink absorptive layer comprises a polyvinyl alcohol (paragraph [0073]), and a cationic polymer represented by the following general formula (paragraph [0044]). In order to provide excellent glossiness and high void ratio without degrading layer brittleness, the ink absorptive layer further comprises hardeners such as boric acid (paragraphs [0090 and 0093]). The average molecular weight of the cationic polymer ranges from 2,000 to 100,000 (paragraph [0057]). The ink absorptive layer may comprise two or more layer, and the layers may be the same or different (paragraph [0098]). In other words, each layer may contain the claimed cationic polymer.



Where  $R'$  is hydrogen atom or an alkyl group;  $R_1'$ ,  $R_2'$  and  $R_3'$  are alkyl;  $J$  is a divalent organic group; and  $X^-$  is anion.

Sakaki and Ohbayashi are analogous art because they are from the same field of endeavor that is the ink jet recording medium art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the cationic polymer of Ohbayashi with the invention of Sakaki in order to improve the light fastness and water resistance of the recording medium (see paragraph [0040] of Ohbayashi).

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 703-305-0389. The examiner can normally be reached on Mon.-Thur. 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on 703-308-0449. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

A handwritten signature in black ink, appearing to read 'B. Shewareged', with a stylized, cursive script.

Betelhern Shewareged  
October 18, 2003.